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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,551	11/15/2001	Yoshinobu Takano	216011US3	7537

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
KNAUSS, SCOTT A	

ART UNIT	PAPER NUMBER
2874	

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/987,551	TAKANO ET AL.	
	Examin r	Art Unit	
	Scott A Knauss	2874	

-- The MAILING DATE of this communication appears on the cover sh et with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-6 and 9-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-6 and 9-17* is/are rejected.

7)☒ Claim(s) *17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/7/03 has been entered.

Claim Objections

2. Claim 17 is objected to because its limitations are recited in claim 11, thus making claim 17 redundant and unnecessary.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 3,4,9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 8-160231 (Fujikura).

Regarding claims 3,4,9 and 10, Fujikara discloses in fig. 2:

An optical fiber cable containing a plurality of fibers

Removing a covering #13 of the cable at a single portion of the cable

Cutting a desired fiber #12 in the cable (see also [0013] of translation) at the single portion without cutting the cable in its entirety, at a non-terminal portion of the cable, to form a terminal of the fiber.

Wherein the fiber #12 is cut, and is made to withdraw from the cable (see [0013])

Fujikara does not, however disclose the use of plastic optical fibers in the cable. However, Fujikara does not limit the types of fibers which can be used in the cable. Since the advantages of plastic fibers, e.g. - greater bend resistance, greater impact strength, greater ease of handling, and high bonding efficiency at connector portions thereof – are well known in the art (see the final office action mailed 5/7/03), it would have been quite obvious to one of ordinary skill in the art to substitute such plastic fibers into the branching arrangements and cables disclosed by Fujikara in order to provide

short distance fiber links which have greater flexibility and ease of handling. Furthermore, it would also have been obvious to one of ordinary skill in the art to apply the methods of Fujikara to known optical cables, including those with plastic optical fibers, in order to provide branched optical connections. Even further, it has been held to within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Regarding claim 4, Fujikura further discloses a slotted spacer (see slot #11), the fiber being cut without cutting the spacer (see [0017])

Regarding claim 9, the method is a post branching method (see [0008]) and the desired fiber is cut and withdrawn from the cable, as previously mentioned.

Regarding claim 10, the method is a post branching method and the fiber is cut without cutting the spacer as described above.

6. Claims 5,6,11-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujikara as modified above in view of 2000-19333 (Tanji).

Regarding claim 5, Fujikara, as modified above, discloses an optical fiber cable with all the limitations set forth in the claim, but does not explicitly disclose a tension member, the desired fiber being cut without cutting the tension member.

Nevertheless, it is well known in the art to provide slotted spacers #11 of the type disclosed by Fujikara with a central tension member. One example of such a configuration is disclosed by Tanji in figs. 1B and 2B, which has a slotted spacer #12

with a central tension member #11. The use of such a tension member is desirable because it imparts extra strength to a fiber optic cable.

Therefore it would have been obvious to one of ordinary skill in the art to provide a tension member within the spacer of Fujikara as disclosed by Tanji for the purpose of providing a strong fiber optic cable. If Fujikara is thus modified, it is clear from the disclosure of Fujikara that, since the slotted member is not cut (see [0017]) the tension member would also not be cut, since it would reside inside the spacer.

Regarding claim 6, Fujikara further discloses that it is not necessary to bend the cable at the time of ejection of the fiber (see [0010]) thus, the tension member would not be elastically deformed, the fiber being cut to form a terminal of the fiber.

Regarding claim 11, as discussed above, Fujikara, discloses all the limitations of the claim as set forth regarding claim 5, and also discloses that the method is a post branching method (see [0008])

Regarding claim 12, Fujikara further discloses that it is not necessary to bend the cable at the time of ejection of the fiber (see [0010]) thus, the tension member would not be elastically deformed, the fiber being cut to form a terminal of the fiber.

Regarding claim 13, the cable is shown in extended form in figs. 1 and 2.

Regarding claim 15, the fiber #12 is cut, and is then withdrawn from the cable (see [0013])

Regarding claim 16, the cable is provided with a slotted spacer #11, the fiber being cut without cutting the spacer (see [0017])

Regarding claim 17, this claim appears to be redundant since its limitations are encompassed by claim 11, and is rejected because Fujikara, as modified, discloses cutting a fiber without cutting a tension member.

7. Claims 4-6,11-14,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanji.

Regarding claims 5,6,11,12 and 17 Tanji discloses a method comprising:

Removing a covering #1 of the cable at a single portion of the cable

Cutting a desired fiber #4 in the cable (see [0011]) at the single portion without cutting the cable in its entirety, at a non-terminal position of the cable, to form a terminal of the fiber.

Wherein the branching method is a post-branching method (see abstract), and wherein the cable is provided with a tension member #11, and the desired fiber is cut without cutting or elastically deforming the tension member

Tanji does not, however disclose the use of plastic optical fibers in the cable. However, Fujikara does not limit the types of fibers which can be used in the cable. Since the advantages of plastic fibers, e.g. - greater bend resistance, greater impact strength, greater ease of handling, and high bonding efficiency at connector portions thereof – are well known in the art (see the final office action mailed 5/7/03), it would have been quite obvious to one of ordinary skill in the art to substitute such plastic fibers into the branching arrangements and cables disclosed by Tanji in order to provide short distance fiber links which have greater flexibility and ease of handling. Furthermore, it

would also have been obvious to one of ordinary skill in the art to apply the methods of Tanji to known optical cables, including those with plastic optical fibers, in order to provide branched optical connections. Even further, it has been held to within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Regarding claim 13, the cable is in an extended state

Regarding claim 14, the fiber is withdrawn (taken out) and then cut (see [0011])

Regarding claims 4 and 16, the cable is cut without cutting the spacer (see [0011])

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 4,859,020, JP 08-262238, 11-295574, 08-220393, 11-295573, 56-158311, 01-310320, 04-361206, 02-156206 and 10-20164 disclose various post-branching methods relevant to the patentability of the claims.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott A Knauss whose telephone number is (703) 305-5043. The examiner can normally be reached on 9-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308 - 4819. The fax phone

number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

Scott Knauss

Art Unit 2874

sak

HEMANG SANGHAVI
PRIMARY EXAMINER